



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,213	03/18/2004	Kenneth C. Shuey	ELSE-0827/#20030020	5831

23377 7590 05/22/2006

WOODCOCK WASHBURN LLP  
ONE LIBERTY PLACE, 46TH FLOOR  
1650 MARKET STREET  
PHILADELPHIA, PA 19103

EXAMINER
----------

PATEL, PARESH H

ART UNIT	PAPER NUMBER
----------	--------------

2829

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

51

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/803,213		SHUEY, KENNETH C.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Paresh Patel		2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 14-17 and 19-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
       Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
       Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 03/24/2006 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., biasing to keep inputted AC voltage from swinging below the power supply's acceptable level) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 7-13 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Munday et al. (US 5457621).

Regarding claim 1, Munday et al. (hereafter Munday) in fig. 1-3 discloses an electrical power meter having electronic components, wherein the electrical power

Art Unit: 2829

meter receives alternating current (AC) voltage from an electrical power line, the meter comprising:

a power supply [20, 22, 24, 28] for converting the AC voltage [e.g. phase A voltage] to a direct current (DC) voltage [12v or 5v or 205v] for powering the electronic components [e.g. 14 or 16 or both], wherein the AC voltage provides an electrical reference potential [e.g. from 28 or VREF, see fig. 2] for the electronic components; and

a DC power source [+5 at 96, 26, VDD and/or +5.5, see fig. 2-3] in parallel circuit configuration with the AC voltage, wherein the DC power source provides a DC bias voltage [see fig. 2-3] to the AC voltage.

Regarding claim 2, Munday discloses the meter of claim 1, wherein the DC power source comprises a diode [100 in fig. 2 and diode in fig. 3].

Regarding claim 4, Munday discloses the AC voltage creates a relatively small voltage across the diode [for example at 100].

Regarding claim 7, Munday discloses the DC power source comprises a first resistive element [e.g. 98 with 100, see fig. 2] in series connection with the diode.

Regarding claim 8, Munday discloses the DC power source provides a DC voltage having a value that biases the AC voltage-based reference potential to a value that permits operation of the electronic components [14, see fig. 2].

Regarding claim 9, Munday discloses the electronic components comprise a voltage sensing circuit for sensing the AC voltage [see fig. 2].

Regarding claim 10, Munday discloses the voltage sensing circuit comprises a resistive divider circuit [for example 62 with 50, 52].

Regarding claim 11, Munday the resistive divider circuit comprises a first [50], second [52], and third [62] resistive element.

Regarding claim 12, Munday the first and second resistive element each have a value of approximately 1 megaohm [lines 38-39 of column 5].

Regarding claim 13, Munday the DC power source biases the AC voltage as a function of the AC voltage [see fig. 2].

Regarding claim 18, Munday the AC voltage-based reference potential is greater than negative power supply rail [due to drop at resistive divider, see lines 37-60 of column 5].

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munday as applied to claims 2 and 1 above.

Regarding claim 3, Munday discloses all the elements except for the diode has a forward bias current of approximately 0.5 milliamps and a forward bias voltage of approximately 0.584 volts. Rather, Munday discloses the diode as mentioned above but is silent about diodes ratings as claimed here. It would have been an obvious matter of

Art Unit: 2829

design choice for one having ordinary skill in the art at the time the invention was made to select such ratings as claimed, since equivalent structure i.e. diode is used in the meter of Munday and selection of known diode rating as claimed with meter, were art recognized equivalents to control electrical parameter e.g. the current and/or voltage, with characteristic of the diode.

Regarding claim 6, Munday discloses all the elements including the diode. However, is silent about an IN914 diode. It would have been an obvious matter of design choice for one having ordinary skill in the art at the time the invention was made, since equivalent structure i.e. diode was used in the meter of Munday and selection of known diode as claimed with meter, were art recognized equivalents to control electrical parameter e.g. the current and/or voltage, in electrical/electronic circuits with different characteristic of the diode.

Regarding claim 5, Munday discloses all the elements including the diode. However, Munday is silent about a dynamic AC impedance of the diode is approximately an order of magnitude less than a DC impedance of the diode. It would have been an obvious matter of design choice for one having ordinary skill in the art at the time the invention was made, since equivalent structure i.e. diode was used in the meter of Munday and selection of known diode with impedances as claimed with meter, were art recognized equivalents to control electrical parameter e.g. the current and/or voltage, in electrical/electronic circuits with different characteristic of the diode.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 571-272-1968. The examiner can normally be reached on 8:00 to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2829

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Paresh Patel 05/12/06  
Primary Examiner  
Art Unit 2829

May 12, 2006